

Appl. No. 10/782,601
Amtd. Dated February 27, 2006
Reply to Office Action of November 25, 2005

Docket No. CM06694H
Customer No. 22917

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) In a system comprising at least one mobility server, at least one mobile router ~~edge mobility agent~~ and a plurality of mobile nodes, a method for local routing between two mobile nodes comprising the steps of:
 - receiving a first care-of address for a first mobile node;
 - detecting a mobile router ~~an edge mobility agent~~ having knowledge of said first care-of address;
 - determining, based upon at least one condition, that the mobile router ~~edge mobility agent~~ can perform local routing of at least one datagram for said first mobile node without the at least one datagram being tunneled through a mobility server; and
 - instructing said mobile router ~~edge mobility agent~~ to perform local routing of at least one datagram between said first mobile node and a second mobile node that has a second care-of address that is known to said mobile router ~~edge mobility agent~~.
2. (original) The method of Claim 1, wherein said method is implemented using standard mobile internet protocol.
3. (original) The method of Claim 1, wherein said first care-of address is included in a registration request from said first mobile node.
4. (currently amended) The method of Claim 3, wherein said mobile router ~~edge mobility agent~~ is instructed to perform local routing via a registration reply responsive to said registration request.

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5. (currently amended) The method of Claim 1, wherein said at least one condition includes at least one of:
- detecting that said mobile router edge-mobility-agent is configured for performing local routing; and
 - detecting a need for local routing for said first mobile node.
6. (currently amended) The method of Claim 1 further comprising communicating to said mobile router edge-mobility-agent at least one local routing condition.
7. (currently amended) The method of Claim 1 further comprising:
- detecting at least one change in local routing for said first mobile node; and
 - notifying said mobile router edge-mobility-agent of said at least one change in local routing for said first mobile node.
8. (original) The method of Claim 7, wherein said at least one change in local routing is based on a new first care-of address for said first mobile node.
9. (currently amended) The method of Claim 8 further comprising:
- detecting a second mobile router edge-mobility-agent having knowledge of said new first care-of address;
 - determining, based upon at least one condition, that the second mobile router edge-mobility-agent can perform local routing of at least one datagram for said first mobile node; and
 - instructing said second mobile router edge-mobility-agent to perform local routing of at least one datagram between said first mobile node and a third mobile node that has a third care-of address that is known to said second mobile router edge-mobility-agent.
10. (cancelled)

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11. (currently amended) In a system comprising at least one mobility server, at least one mobile router ~~edge-mobility agent~~ and a plurality of mobile nodes, a method for local routing between two mobile nodes comprising the steps of:

receiving in a mobile router ~~an edge-mobility agent~~ an indication of a first care-of address for a first mobile node; and

determining, based upon at least one condition, that local routing of at least one datagram, without the at least one datagram being tunneled through a mobility server, can be performed by the mobile router ~~edge-mobility agent~~ between said first mobile node and a second mobile node that has a second care-of address that is known to said mobile router ~~edge-mobility agent~~.

12. (original) The method of Claim 11, wherein said method is implemented using standard mobile internet protocol.

13. (original) The method of Claim 11, wherein said determination that local routing can be performed is based on an instruction received from a mobility server.

14. (currently amended) The method of Claim 11, wherein said determination that local routing can be performed is made by said mobile router ~~edge-mobility agent~~.

15. (original) The method of Claim 11, wherein said at least one condition includes detecting a need for local routing for said first mobile node.

16. (original) The method of Claim 11 further comprising performing local routing for said first mobile node.

17. (original) The method of Claim 16, wherein said step of performing local routing includes adding said first mobile node to a local routing list.

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18. (original) The method of Claim 16, wherein said step of performing local routing includes:
receiving a first datagram from said first mobile node to said second mobile node;
determining that said first datagram can be locally routed; and
locally routing said first datagram from said first mobile node to said second mobile node.

19. (original) The method of Claim 16 further comprising detecting at least one change in local routing for said first mobile node.

20. (cancelled)

21. (original) The method of Claim 11 further comprising notifying a mobility server that local routing of at least one datagram can be performed for said first mobile node.

22. (original) The method of Claim 21, wherein said mobility server is a home agent.

23. (currently amended) In a mobile internet protocol enabled system comprising at least one home agent, at least one mobile router ~~edge-mobility agent~~ and a plurality of mobile nodes, a method for local routing between two mobile nodes comprising the steps of:
receiving in a mobile router ~~an edge-mobility agent~~ an indication of a first care-of address for a first mobile node;
determining, based upon at least one condition, that local routing of at least one datagram can be performed by the mobile router ~~edge-mobility agent~~ for said first mobile node, without the at least one datagram being tunneled through a mobility server; and
notifying a home agent that local routing of at least one datagram can be performed by the mobile router ~~edge-mobility agent~~ between said first mobile node and a second mobile node that has a second care-of address that is known to said mobile router ~~edge-mobility agent~~.

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24. (currently amended) In a system comprising at least one mobility server, at least one mobile router ~~edge-mobility-agent~~ and a plurality of mobile nodes, a method for local routing between two mobile nodes comprising the steps of:
- receiving in a mobile router ~~an edge-mobility-agent~~ an indication of a first care-of address for a first mobile node;
 - determining, based upon at least one condition, that local routing of at least one datagram can be performed by the mobile router ~~edge-mobility-agent~~ for said first mobile node, without the at least one datagram being tunneled through a mobility server; and
 - notifying a mobility server that local routing of at least one datagram can be performed by the mobile router ~~edge-mobility-agent~~ between said first mobile node and a second mobile node that has a second care-of address that is known to said mobile router ~~edge-mobility-agent~~.
25. (original) A mobility server configured for performing the method of Claim 1.

26. (currently amended) A mobile router ~~An edge-mobility-agent~~ configured for performing the method of Claim 11.